UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION

MID-PACIFIC REGION

SOUTH-CENTRAL CALIFORNIA AREA OFFICE
FRESNO, CALIFORNIA

FINDING OF NO SIGNIFICANT IMPACT

2007 GROUNDWATER PUMPING/WATER TRANSFER PROJECT FOR 25 CONSECUTIVE YEARS BY THE SAN JOAQUIN RIVER EXCHANGE CONTRACTORS WATER AUTHORITY

CENTRAL VALLEY PROJECT
FRESNO, CALIFORNIA

FONSI: 07-140

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Date

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Date

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In accordance with Section 102 (2) (c) of the National Environmental Policy Act (NEPA) of 1969, as amended, and the Council on Environmental Quality's Regulations for Implementing the Procedural Provisions of NEPA (40 CFR Parts 1500-1508), the South-Central California Area Office of the Bureau of Reclamation (Reclamation) has found that the proposed action would not significantly affect the quality of the human environment. Therefore, an Environmental Impact Statement is not required for the proposed approval of the Groundwater Pumping/Water Transfer Project by the Firebaugh Canal Water District (FCWD) and the Central California Irrigation District (CCID) on behalf of the Camp 13 area. FCWD and CCID are member agencies of the San Joaquin River Exchange Contractors Water Authority (Exchange Contractors). This Finding of No Significant Impacts (FONSI) is supported by the attached *Groundwater Pumping/Water Transfer Project for 25 Consecutive Years, Environmental Assessment/Initial Study* (EA/IS).

BACKGROUND

Reclamation and the Exchange Contractors are parties to the Second Amendatory Contract for Exchange of Waters, Contract No. 11r-1144 (Contract), dated February 14, 1968, and incorporated by reference into the attached EA/IS. Under the Contract, the United States supplies the Exchange Contractors with a substitute supply of Central Valley Project (CVP) water to be used in lieu of their rights to certain waters of the San Joaquin River. Pursuant to the terms of the Contract, up to 840,000 AF of substitute CVP water per year is made available for irrigation purposes by Reclamation from the Sacramento River and the Delta, and other sources through the CVP, and up to 650,000 AF in critical dry years.

Reclamation reviews and approves water transfers to ensure that the water transfer meets applicable Federal and State laws, including policies and procedures governing transfer of CVP surface supplies and, in particular, the Central Valley Project Improvement Act of 1992, Section 3405. Approval of a transfer of Central Valley Project (CVP) water (through groundwater substitution) by Reclamation would allow the Exchange Contractors to execute long-term agreements (up to 25 consecutive water years) with certain CVP contractors in the San Luis Unit and San Felipe Division of the CVP.

Poor-quality groundwater rises into crop root zones and drainage systems within the Exchange Contractors' service area. Two specific areas covering 28,000 acres within the Exchange Contractors' service area, specifically within FCWD and the Camp 13 area of CCID, are currently affected by the shallow groundwater levels which reach the crop root zone. Both

FCWD and CCID/Camp 13 propose to undertake actions to pump groundwater and transfer a commensurate portion of their CVP supply.

PROPOSED ACTION

The purpose and need for the Proposed Action is to develop a water supply for transfer from the Exchange Contactors' service area of up to 20,000 AF annually that will assist in (1) alleviating water supply shortages to the CVP San Luis Unit agriculture service contractors and local CVP municipal and industrial (M&I) uses in San Luis and Santa Clara Valley Water Districts and (2) provide capital improvement funding to control drainwater production in areas affected by shallow groundwater. The primary source of this transfer water is groundwater pumping (up to 15,000 AF annually) to manage drainwater production, with a secondary source being conservation measures (such as canal lining and drip irrigation that would result in a savings of water to a saline sink), and a third and "last priority" source being temporary rotational fallowing of land where such land fallowing would benefit/control shallow groundwater levels and the production of drainwater.

The Proposed Action transfer would allow for delivery of up to 20,000 AF annually to any or all of the following users:

- CVP San Luis Unit agriculture service contractors (Pacheco, Panoche, San Luis, and Westlands Water Districts), up to 20,000 AF;
- Local CVP M&I uses in Santa Clara Valley Water District (SCVWD) of up to 2,000 AF and/or San Luis Water District (SLWD) of up to 5,000 AF.

The Proposed Action will develop up to 20,000 AF annually of substitute water from a combination of groundwater pumping and conservation/rotational land fallowing. Based on the groundwater analysis (Appendix A of the EA/IS), the Proposed Action will be a maximum groundwater pumping regime of 15,000 AF. The new groundwater pumping program would consist of up to 15 new wells and 5 existing wells using diesel-driven pumps. The groundwater would be pumped from the upper aquifer above a depth of 350 feet (above the Corcoran clay), blended with surface water deliveries in CCID canals to ensure adequate water quality for irrigation needs, and then used for irrigation within the CCID service area. The water developed from groundwater would be blended into the Outside Canal of CCID. The pumped groundwater would substitute for CVP surface water delivery primarily from the Delta-Mendota Canal.

The Exchange Contractors' Proposed Action is to limit water transfers for M&I and irrigation purposes to existing uses only. There will be no new lands brought under production and no conversion of land to urban uses. Transfers that will result in CVP contract allocations greater than 100 percent of contract amounts for M&I and/or irrigation purposes will need to be shown to meet the following conditions:

- No new lands will be brought into agricultural production
- Agricultural or other undeveloped, non-urban land will not be converted to urban uses
- Use of transfer water will be shown by the purchaser to result in a reduction of groundwater or other source of supply.

Besides the Proposed Action, two other action alternatives, Groundwater Pumping Only and an Alternative without Groundwater Pumping, were discussed in the EA. The Groundwater Pumping Only alternative would develop up to 15,000 AF by groundwater pumping in CCID and FCWD and would not include a conservation and rotational land-fallowing component. An Alternative without Groundwater Pumping was also discussed in the EA. The without Groundwater Pumping Only alternative would use conservation and fallowing measures to develop 20,000 AF of transfer water.

Prior to approval of water transfers to new M&I uses in excess of existing CVP contract amounts, the action will be evaluated to determine if additional analysis is necessary. New analysis or supplementation of existing analysis may be necessary. Consultation with the U.S. Fish and Wildlife Service on impacts for use of 3,000 AF (Phase II) to serve new proposed development within the San Luis Water District is not part of this action.

FINDINGS

Reclamation prepared a draft EA and FONSI on the proposed groundwater pumping/water transfer project which was made available to the public for review on July 6, 2007. The public review period ended on August 20, 2007. Six comment letters were received during the review period. Responses to the six comment letters are provided in Appendix F of the final EA. Based on the detailed discussions and analysis in the EA, which are incorporated by reference, and all comments received to date, the reasons why the impacts will not have a significant impact on the human environment are summarized as follows:

1. Air Resources

Impacts on air quality are not substantial for the Proposed Action because the modeling showed that in no case would an individual National Ambient Air quality Standard for any pollutant and averaging time be exceeded solely due to emissions from Tier 3 BACT pump engine operation. Proposed Action emissions would not violate any air quality standard or contribute substantially to an existing air standard violation (i.e., particulate matter less than 10 microns (PM_{10}). Furthermore, the overall area of disturbance for construction of the wells is temporary and localized (400 sq. ft. per well, 6,000 sq. ft. total), so the generation of fugitive dust is less than significant. However, additional measures to reduce less-than-significant impacts even further include the following to be implemented by FCWD and CCID:

- Air Quality for Well Construction: No significant construction-related impacts are associated with the Proposed Action, and no mitigation is required. However, the San Joaquin Valley Air Pollution Control District strongly encourages the implementation of mitigation measures to minimize any construction impacts from particulate matter less than 10 microns (PM_{10}) and fugitive dust emissions. Measures to avoid and/or minimize even insignificant impacts to air quality are included as part of the Proposed Action design and standard construction and operation protocols. The most likely measures to be implemented are the use of water or chemical stabilizer/suppressant.
- Air Quality for Well Operation: The Proposed Action would use diesel engines that meet Best Available Control Technology (BACT) requirements. The new engines would be required to meet BACT requirements as outlined in SJVAPCD Rule 4702. The BACT standard for nitrogen oxides (NO_X) requires a 96.6 percent reduction from Tier 2 and a 94.3

percent reduction from Tier 3, which can only be accomplished by selective catalytic reduction (SCR) for diesel engines. SCR will be implemented on the engines as BACT mitigation.

2. Biological Resources/Threatened and Endangered Species

In the water development area, no impacts from the construction related to the Proposed Action are expected to occur to Federally listed species or other special-status species. No habitats other than agricultural habitats would be affected; these particular habitats do not provide usable habitat, even for those few species that may utilize agricultural lands to some degree. Reclamation's SCCAO standard avoidance measures for San Joaquin kit fox will be implemented for well construction. A qualified biologist will inspect each well site prior to the initiation of approved construction activities.

No impacts to Federally listed species or other special-status species are expected to occur in the water development area from operation of the Proposed Project. There will be no significant impacts to water quality in wetlands in nearby wildlife refuges (as described in Section 4.4.2.2 and Appendix D). Water quality in the Outside Canal will not affect special-status species, as none occur in the canal. Water quality changes (salinity) in the Main Canal, and therefore potential downstream changes in water quality in refuges and the San Joaquin River, will be so small in magnitude and within the range of normal fluctuations of water delivered from the DMC that there would be no significant impact on special-status species. Fallowing of lands for the purpose of making water available for transfer will be fallowed on a temporary, rotational basis and will be in accordance with applicable law and policy and would be subject to disking for pest control, which will neither create nor remove any habitat for special-status species. No proposed or designated critical habitat occurs in the water development areas and so none would be impacted.

The transfer of water to help meet CVP contractors' current water needs is not expected to cause changes or alter habitat within the San Luis Unit and SCVWD because no new lands will be brought into production or converted to other uses. Use of the transferred water will be limited to existing uses for the full 25-years of the project to avoid any significant impacts of potential land conversion on special status species, riparian or wetland habitats, or the movement of terrestrial wildlife or fish.

To the extent that the Proposed Action would make new water available for M&I uses above recent CVP contract allocations based on current water allocations in the San Luis Unit and SCVWD, there is the potential for this water to support the conversion of native lands or agricultural land to urban uses with the potential for impacts to special status species and/or their habitats. Therefore, to avoid this impact, any water for M&I uses, that could result in land use changes, would not be made available until appropriate NEPA/CEQA and ESA/CESA compliance is accomplished (see Section 2.4 of the EA/IS).

3. Cultural Resources

There is one recorded archaeological resource within the well development area; P-10-000105 (CA-FRE-105) is a burial site with associated artifacts. If a transfer is approved, when specific well locations are identified, a cultural resource inventory will be conducted to identify cultural resources that may be eligible for inclusion in the NRHP. A visual survey of each well site will be conducted to see if any cultural resources material is present. If any cultural resources are

located during the survey of the 15 well sites, those well sites will be relocated and the new location surveyed. Following the identification efforts, Reclamation will consult with the SHPO and Indian Tribes on an appropriate finding of effect pursuant to regulations outlining the Section 106 process at 36 CFR Part 800. Even if no resources are identified during the survey, well installation workers will be trained to identify cultural materials if required by SHPO. If any cultural material was encountered during the digging of any of the wells, work will stop and the site would be evaluated by a qualified archaeologist. Reclamation finds that these measures will reduce potentially significant adverse impacts to less than significant by avoiding impacts to cultural resources from installation of wells.

For the water receiving areas, adverse effects can also be avoided because the transfer of water for existing uses would not result in new lands being brought into production or converted to other uses. Provision of water to either San Luis Unit contractors or SCVWD beyond recent allocations and current contract amounts for M&I purposes for any future needs of the water contractors could possibly result in proposals that would be required to comply with Section 106 of the National Historic Preservation Act and other rules and regulations governing effects or potential effects of new undertakings to cultural resources determined or considered potentially eligible for inclusion on the NRHP.

4. Hydrologic Resources – Groundwater and Surface Water

Groundwater

There are five potential impacts that may occur in association with the Proposed Action in the water development area. These consist of: 1) drawdowns in the upper aquifer, 2) drawdowns in shallow wells, 3) groundwater flow into Madera County, 4) land subsidence, and 5) groundwater quality. In summary, the most important effect of the Proposed Action will be a reduction in the northeasterly migration of poor quality groundwater, and a lessening of the deterioration of groundwater quality in adjoining parts of the CCID and in Madera County, which will actually result in an overall benefit for the CCID/Madera County areas. Drawdowns will be increased locally during each pumping season, but impacts on pumping lifts in existing supply wells will be minimal, i.e., about the same as historically measured in and near the Mendota Pool Group well fields and less than 0.2 foot over the proposed 25-year pumping project. Land surface subsidence is also projected to be minimal. None of these impacts will be significant.

The rate of downward movement of shallow groundwater containing selenium is only one factor that was considered in the EA/IS. Another important issue is the extent of mixing of downward moving water with groundwater in the deeper strata to be tapped by the proposed recovery wells. Even if a small amount of shallow groundwater moves downward, it will be mixing with a much larger amount of other deeper selenium-free groundwater. The resulting well discharge is a mixture of the waters, and careful monitoring during recovery well pumping episodes will help to predict future changes in groundwater quality. Also, a major factor to control the downward movement is proper well design, in particular, the tops of the perforated intervals and the extent of the annular seals. As each recovery well is installed, more information will become available through testing to design the remaining recovery wells and avoid adverse impacts to groundwater resources.

In the San Luis Unit, the application of the transfer water to existing lands for existing uses is not expected to produce changes in groundwater conditions that can be distinguished from those that

will occur under existing conditions or the No Action Alternative and could result in less groundwater pumping. In SCVWD, the additional transfer water could result in less groundwater pumping locally, especially during dry periods, but on a small scale. Consequently, adverse impacts on local groundwater resources from the transfer water are unlikely.

Surface Water

The areas that will develop the water for transfer are the Camp 13 Drainage Area within CCID, , and FCWD. The Proposed Action will involve the development of new wells and use of existing wells adjacent to the CCID Outside Canal. Pumping from the wells will blend into CCID's canal supply and be delivered downstream. Entities receiving deliveries from or through CCID will experience no change in water supply, but will potentially experience a change in the water quality of their supply. Consequently, the environmental issues addressed in Section 4.4.2.2 of the EA/IS and summarized here are focused on water quality impacts and water deliveries and subsequently the San Joaquin River. Additional water development from conservation and temporary land fallowing measures will not introduce water of lesser quality into the delivery system (see Section 4.4.4.2 of the EA/IS).

The flow in the Outside Canal upstream of the O'Banion Bypass location is the same in the No Action and Proposed Action scenarios except for one instance in critical years. During that period CCID diversions were shifted in September from the Outside Canal to the Main Canal with a compensating shift in pumping to other months to achieve the directed water quality effect along the Outside Canal while minimizing the effect on Main Canal deliveries. The quality of the flow remaining in the Outside Canal will be approximately the same as shown in Table 4.4-4 in the EA/IS until fully depleted by downstream deliveries, a less-than-significant effect. The results illustrate the potential flexibility in pumping strategy that could provide a managed range of water quality during the year. Flexibility will be available in shifting pumping and canal diversions from period-to-period. and among the canals to achieve desired delivered water quality conditions. An increase in pumping rate capacity for the Proposed Action could provide additional flexibility to blending operations.

The Main Canal is disaggregated into two areas representing Section 3. Section 3a represents an area downstream of the well field where the deliveries are associated with CCID's agriculture irrigators. This area is generally downstream of Fairfax Avenue and ends approximately at Russell Avenue. Section 3b represents the area downstream of Section 3a and continues to the O'Banion Bypass. Within this area deliveries occur to the Grassland Water District. The water quality of flow leaving Section 3a will be generally indicative of diversions from Mendota Pool (see Table 3 in Appendix D) and will be unaffected by the Proposed Action. The projected water quality in Section 3b for the No Action and the Proposed Action will also be the same. During January and December when maintenance may occur upstream of Section 3b, water may be delivered to the area from O'Banion Bypass; but these deliveries will be unaffected by the Proposed Action since headwork diversions and Proposed Action pumping are not occurring.

The results of the technical analysis indicate the changes in water quality that could occur to water delivered at various locations along CCID's system are less than significant. The effect of these changes within the disposition of the delivered water is described as follows, and all effects are determined to be not significant for the reasons explained below.

Deliveries Adjacent to Section 1. For areas receiving water from CCID's Main Canal in Section 1 and other diversions from the Mendota Pool, there will be no change in water quality since Proposed Action pumping enters CCID's system downstream of these locales.

Deliveries Adjacent to Section 2. The delivery area of Outside Canal in Section 2 is downslope-bound by the Main Canal and thus surface water within this area is isolated from adjacent areas. Surface water deliveries are applied to the lands with percolation occurring to the groundwater. Surface water tailwater within the area, although minor, is captured by CCID through re-lift pumping into the Main Canal. At the peak of the irrigation season, the re-lift of tailwater may be 2-3 percent of the flow in the Main Canal, and degrades the quality of water in the Main Canal by less than 5 uS/cm (without the Proposed Action). The lessening of water quality in surface water supply to the area (generally a maximum degradation of less than 400 uS/cm EC, see Table 4.4-4 in the EA/IS) with subsequently affected tailwater from this source will not change this result.

Major deliveries by CCID from the Main Canal in Section 2 include deliveries to the Parsons Canal and Colony Main Canal. These canal systems serve areas in CCID's southern area. Since the water quality in the Main Canal in Section 2 is unaffected by the Proposed Action no change in the source water of CCID's southern area would occur.

Deliveries Adjacent to Section 3. The delivery area of Outside Canal in Section 3 is also downslope-bound by the Main Canal and thus also isolated from adjacent areas. The deliveries in this area are about 50 cfs during the peak of the irrigation season. Surface water deliveries are applied to the lands, with percolation occurring to the groundwater. No tailwater in this area is currently captured by CCID through re-lift pumping into the Main Canal, thus any effect caused by a lessening in the quality of the water source supply to this area (generally a maximum degradation of less than 400 uS/cm EC) manifests within the area's lands. Deliveries of water from the Main Canal in Section 3a and Section 3b will be unaffected.

Deliveries Below O'Banion Bypass. As described previously, water in the Outside Canal that originates from Mendota Pool and is degraded by the Proposed Action pumping may at times continue downstream of O'Banion Bypass for some distance until depleted by deliveries in CCID's northern area. The areas served with this water are upslope of the Main Canal, and except for tailwater re-lift pumping into the Main Canal (minor in quantity) would not affect other surface water resources.

The quality of water deliveries from the Main Canal below O'Banion Bypass is projected to be affected by the Proposed Action. Generally the flow in Main Canal below O'Banion Bypass, and consequently to downstream users including some wildlife management areas, could experience a lessening in water quality due to the Proposed Action ranging between 30 and 70 uS/cm EC (20-50 ppm TDS) during March through October during non-critical years, and up to 90 uS/cm EC (approximately 65 ppm TDS) during critical years. These fluctuations would occur within the context of existing conditions where daily fluctuations in water quality from water deliveries from the Delta-Mendota Canal vary widely, from minimal to 1,000 uS/cm EC (approximately 700 ppm TDS). The small water quality effect could be alternatively managed by the flexibility available to shift pumping from month-to-month, and by alternatively managing the diversions at CCID's Outside and Main Canals and flow through the O'Banion Bypass, and is, therefore, not significant.

Furthermore, agricultural lands receiving this water (CCID's northern area) have little or no surface water connectivity with the San Joaquin River. The additional loading from the supplies would have effects occurring within the area's lands.

San Joaquin River Outfalls. Since the Proposed Action does not affect the quality of water provided to CCID's southern area or the wildlife management areas served adjacent to CCID's southern area, nor does the quality of water used by other diverters of Mendota Pool change, there is no change in water quality anticipated to the outflow of water from the area to the San Joaquin River.

In addition, the Proposed Action will simultaneously reduce tile drainage discharge by up to approximately 135 AFY (101 AFY on average) due to the lowering of the shallow groundwater table from groundwater pumping and, therefore, produce a beneficial effect.

Water Receiving Areas in San Luis Unit and SCVWD. The additional water deliveries to the San Luis Unit and SCVWD for agricultural and M&I uses will have no impacts to surface water resources in the receiving areas, because contract allocations and totals, points of diversion, and water measurements would not differ substantially from existing conditions and No Action.

5. Land Use including Indian Trust Assets

The Proposed Action will not convert farmland to other uses in the water development area. The proposed water transfer utilizes pumped water for use on CCID agricultural lands and transfers Delta-Mendota Canal water to the other CVP water users/receiving areas. These actions support existing farmlands and minimize the potential for their retirement and conversion to other uses. The proposed water transfers to San Luis Unit and SCVWD will assist in meeting water demands of existing agricultural and M&I water users and in improved water supply reliability. For any deliveries beyond recent CVP contract allocations and amounts that would serve new development or users, appropriate NEPA/CEQA and ESA/CESA compliance would be required by Reclamation prior to completion of any transfer agreements such that there would be no adverse effects and any land use changes would be consistent with local land use policies.

No Indian Trust Assets (ITA) are located within the well development area, so there is no significant effect.

6. Socioeconomics

The Proposed Action will have less-than-significant impacts on population growth in the four-county area. The total output, income, and employment impacts shown represent 0.03 percent of four-county output and income and 0.07 percent of four-county employment. Because employment levels are expected to decline under the Proposed Action, population levels are also expected to decrease if alternative jobs are not available or remain constant if workers find employment elsewhere within the region.

The effects of the additional water from the proposed transfer program on the San Luis Unit and SCVWD contractors will be beneficial in that they would assist in meeting water demands of existing uses and improved water supply reliability.

7. Environmental Justice

For the Proposed Action, some impact to the Hispanic community from fallowing of up to 1,818 acres in the 28,000 acre study area could occur. However, there appear to be adequate alternative agricultural jobs available in the four-county area, though perhaps not in the Exchange Contractors service area, such that there will be no disproportionately high and adverse human health or environmental effects on minority or low income populations.

8. Cumulative Effects

Based on the existing **air quality** conditions in the project area, the Proposed Action will have an incremental contribution to a cumulative effect in the region. However, that contribution would not be cumulatively considerable based on the fact that the project would comply with "specific requirements in a previously approved plan ..."

Because no impacts to **biological resources** are expected, there would be no incremental effects to contribute to produce cumulatively considerable effects in the larger water receiving area. In the receiving water areas, current CVP contract allocations plus the new transfer water would not result in additional lands coming under production or land conversion to urban uses.

The Proposed Action's incremental effects to **cultural resources** from well installation would be less than significant given mitigation measures to avoid disturbance to resources that could be present.

The incremental effects to **groundwater resources** of the Proposed Action combined with associated effects in the water development area are not adverse or significant. The minimal effects would comply with requirements of the Exchange Contractors' AB 3030 Plan to conjunctively manage surface and groundwater resources and will not be cumulatively considerable. The effect of pumping associated with other urban and agricultural activities in Madera County has been overdraft of groundwater resources and migration of poor quality groundwater into CCID and Madera County. The Proposed Action will reduce the northeasterly migration of poor quality groundwater and lessen the deterioration of well water quality in these areas and, therefore, will not contribute to a cumulatively considerable impact. Conservation and land fallowing will reduce the percolation of irrigation water to groundwater in the water development area and will eventually lessen migration of poor quality groundwater.

For **surface water resources**, the incremental effects of the Proposed Action are not significant. However, water quality problems in the San Joaquin River watershed are well known and result from a variety of land uses: urban runoff, agricultural discharges from irrigation practices, and discharges from wetlands and wildlife refuges. Water quality regulatory requirements and projects affecting the San Joaquin River include the SWRCB Decision 1641, the New Melones Interim Operation Plan, Level 4 wildlife area water deliveries, the San Joaquin River Agreement (inclusive of VAMP), the Grassland Bypass Project through 2009, salt and boron TMDLS from the CVRWQCB, the TMDL for dissolved oxygen in the Stockton Deep Water Ship Channel, the RWQCB irrigated lands conditional waiver, the Westside Regional Drainage Plan, and the San Luis Drainage Feature Re-evaluation. Within this context of future discharge projects and programs to improve water quality, the incremental beneficial impact of the reduction in drainage discharge from the Proposed Action is not cumulatively considerable.

Approved and proposed water transfers by the Exchange Contractors and the interim and long-term contract renewals, when added to other past, present, and reasonably foreseeable future

actions, will not create cumulatively considerable impacts on surface water resources or quality. Water deliveries to San Luis Unit contractors will be but one of many competing demands on surface water resources available for diversion and delivery. Because South of Delta deliveries rely on several actions "upstream" of the San Luis Unit, long-term contract renewals and related water transfers in the San Luis Unit have limited opportunities to increase reliance on other South of Delta surface water resources. Agricultural sources of sedimentation, siltation and selenium affecting receiving waters will continue to be supported by some CVP surface water deliveries in the region.

The cumulative **land use** impacts of primary concern in the San Luis Unit and SCVWD are associated with ongoing growth pressures that threaten the long-standing agricultural land use base by converting agricultural lands to M&I and residential use. Any conversions from agricultural to M&I land use within the San Luis Unit and SCVWD will not be caused by the terms of the contract renewal, nor by actions of the contractors including the previous water transfer program for 2005–2014 and the current proposed water transfer by the Exchange Contractors. Instead, such changes would be the result of individual and cumulative land use planning decisions of affected counties, cities, and individual landowners. Those decisions will be guided by state and possibly local laws that already or may further require cities and counties to demonstrate adequate water supplies for land development projects.

Concerning **socioeconomic** impacts, the incremental impacts of fallowing in the Exchange Contractors area would be offset by the payments for water sold and investment in groundwater extraction, conservation, and irrigation system improvements. At a regional level, similar reinvestments from water sold and increased production in other areas would avoid a cumulatively considerable effect.